

**PREVALENCE AND RISK FACTORS OF SEXUAL VICTIMIZATION:  
FINDINGS FROM A NATIONAL REPRESENTATIVE SAMPLE OF BELGIAN ADULTS AGED 16-69**

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**ABSTRACT**

**Background:**

Sexual victimization is a major public health, judicial and societal concern worldwide. Prevalence studies on sexual victimization have mostly focused on female and student samples. Overall, nationally representative and comparable studies are still lacking.

**Methods:**

We applied a broad definition of sexual violence, including hands-off and hands-on victimization, and behaviorally specific questions to assess sexual victimization. Prevalence estimates were obtained after weighting the sample according to the population proportions of men and women in three age groups. The data provide nationally representative lifetime and 12-month prevalence estimates. We further conducted logistic regression to estimate adjusted odds ratios to examine the relationship between demographic, socioeconomic, and sexuality-related variables with the likelihood of being victimized.

**Results:**

These estimates indicate that 64.1% (95% CI: 61.9-66.1) of the general population in Belgium experienced some form of sexual victimization in their lives, and 44.1% (95% CI: 41.9-46.2) experienced some form of sexual victimization in the past 12 months. Logistic regression analysis shows that women are more than five times more likely to be victimized in their lifetimes than men (aOR = 4.96, 95% CI: 4.02-6.14), with an overall prevalence estimate of 80.8% (95% CI: 78.3-83.1). Young adults between 16 and 24 years are twice as likely to be victimized in their lifetimes (aOR = 2.13, 95% CI: 1.36-3.35) and more than three times more likely in the past 12 months (aOR = 3.52, 95% CI: 2.82-4.18) compared to adults aged 50 to 69 years. Prevalence estimates for all forms of sexual victimization are presented and compared to other national and international studies on sexual victimization.

**Conclusion:**

This comparison suggests that prevalence rates have been underestimated. The prevalence estimates obtained in this study demonstrate that all sexes and ages are affected by sexual victimization.

**Keywords:**

sexual violence, sexually transgressive behavior, sexual aggression, prevalence, individual-level correlates

## INTRODUCTION

Sexual victimization is a global problem with immediate and long-term consequences for an individual's physical, sexual, social, and mental well-being (World Health Organization, 2019). Sexual victimization may trigger anxiety, depression, post-traumatic stress symptoms, substance abuse, and suicidal ideation (Elliott et al., 2004; Peterson et al., 2011)

To address this major public health problem, it is indispensable to understand the nature and extent of sexual victimization. Drawing general conclusions about the scope of the problem is, however, difficult because many studies on sexual victimization use convenience samples, mostly consisting of students (e.g., Krahé & Berger, 2013), or focus on female victims (e.g., Wilson & Miller, 2016), thus excluding male sexual victimization (Peterson et al., 2011). Therefore, nationally representative studies are needed (Peterson et al., 2011). These have the advantage that their findings are generalizable for the population on a national level. This allows to obtain reliable information on how many people in a population are affected by which forms of sexual violence. This knowledge, in turn, helps to formulate policy recommendations and improve prevention approaches that do not only focus on a specific group, leaving another one unattended (Peterson et al., 2011), but instead can be tailored to each group at risk. To date, however, few nationally representative studies are available and those that exist have mainly been conducted in the United States (Depraetere et al., 2020).

While this already limits the understanding of the problem internationally, variability in sexual violence definitions further restricts the current understanding of this problem. Researchers often apply different definitions, and thus different measures, to study sexual victimization. This limits the comparability of existing studies and the ability to draw conclusions for prevention approaches (Basile et al., 2014; Depraetere et al., 2020; Elliott et al., 2004; Krahé et al., 2014). Prevalence rates in nationally representative studies that include both male and female sexual victimization exhibit considerable variability and range from 4.5% and 56% for women and 0.2% and 21% for men (Bajos & Bozon, 2008; Basile et al., 2007; Breiding, 2014; Elliott et al., 2004; Haas et al., 2012; Pieters et al., 2010; Sundaram et al., 2008; Vanwesenbeeck et al., 2010).

Focusing on Belgium, where the current study was conducted, only one nationally representative study is available. In their study, Pieters et al. (2010) found that 5.6% of women and 0.8% of men experienced forced/unwanted sexual touch or intercourse after the age of 18. One major limitation of this study is the lack of behaviorally specific questions (BSQs) when measuring sexual victimization. Using non-BSQs in sexual victimization surveys increases ambiguity in participant interpretation which may lead to an underestimation of victimization prevalence (Peterson et al., 2011; Wilson & Miller, 2016). The same applies to a study representative for the Dutch-speaking part of Belgium that assessed sexual victimization before and after the age of 18 in 1,825 men and women between 14 and 80 years (Buysse et al., 2013). The authors found that 10.6% of women and 6.3% of men experienced some form of sexual victimization before the age of 18, and 17.4% of women and 2.3% of men after the age of 18. Moreover, splitting lifetime prevalence into experiences before and after the age of 18 and not providing an overall rate for lifetime prevalence limits the comparability with other studies and the insight into general lifetime prevalence of sexual victimization (Depraetere et al., 2020).

A more recent study conducted in several European countries (Krahé et al., 2015), that used BSQs, found much higher prevalence rates in Belgium, namely, 20.4% for women and 10.1% for men between 18 and 27 years. This study, however, only assessed only hands-on victimization that occurred after the age of 16 which hampers comparability with other studies that report lifetime prevalence of sexual victimization. Furthermore, the sample largely consisted of students which limits the generalizability of the findings.

Looking at neighboring countries, only one nationally representative study can be found. Haas et al. (2012) found that 34% of Dutch women and 6% of Dutch men reported having been sexually victimized in their lifetimes when generally asked whether they had ever experienced sexual violence. When lifetime victimization was assessed with more specific questions, 55.9% of women and 20.5% of men reported having experienced at least one type of sexual victimization. This highlights again the importance of BSQs in sexual victimization research. Lower rates were found in a large convenience sample of German students aged 19 to 31 (35.9% for women and 19.4% for men; Krahé & Berger, 2013). This study used BSQs but excluded hands-off victimization and incidents that occurred before the legal age of consent (i.e., 14 years in Germany).

Overall, this heterogeneity in assessment and the resulting discrepancies in prevalence rates hampers drawing strong conclusions about the magnitude of sexual victimization within and between countries (Basile et al., 2014; Krahé et al., 2015). Large-scale nationally representative studies are therefore needed to grasp the full scope of the problem, increase generalizability of the results, and formulate policy recommendations at a national level (Breiding et al., 2008; Peterson et al., 2011). Recent, meaningful estimates are necessary to evaluate current prevention measures, inform policymakers regarding the management of sexual victims, and examine all vulnerabilities to victimization.

The current study aims to respond to this lack of national representative research worldwide and in Belgium specifically, and to provide comparable results by applying a broad, inclusive definition of sexual violence as well as BSQs. More specifically, the study aims to provide recent nationally representative estimates of sexual victimization among the Belgian population aged 16 to 69 and to examine risk correlates for sexual victimization.

## **METHODS**

### **Sampling Procedure and Participants**

This study utilized data collected between October 2019 and February 2020<sup>1</sup>. The study was approved by the Medical Ethical Committee of Ghent University and Ghent University Hospital (project nr. 2018/1204) and conducted in accordance with the ethical guidelines of the WHO (2016) for researching violence.

The National Register, containing information on all Belgian residents, was used as a sampling frame from which Belgian residents were sampled to participate in an online survey. A random sample consisting of an equal number of male and female participants in three equally divided age groups was drawn by the National Register. In total, 20,760 Belgian residents between 16 and 69 years were contacted in three waves by post by the Belgian National Register in October and November 2019. To limit self-selection bias, the study was presented as a survey about health, sexuality, and well-being. The respondents could access the self-administered online survey using either a link or a QR code indicated in the letter sent by the National Register. The survey was administered through the survey software Qualtrics. Prior to participation, respondents were provided additional information on the study and an informed consent form. Only those who gave informed consent were able to participate in the survey. To increase response rates, participants were informed about the possibility to take part in a lottery to receive a voucher worth 30 EUR for which they were redirected to a separate short questionnaire after completing the main survey to ensure that survey answers could not be linked to personal contact information.

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<sup>1</sup> This study is part of a larger research project aimed at *UNderstanding the MEchanisms, NAture, MAgnitude, and Impact of Sexual Violence* in Belgium (UN-MENAMAIS; BR/175/A5/UN-MENAMAIS; Belspo, n.a.); [http://www.belspo.be/belspo/brain-be/themes\\_5\\_Social\\_en.stm#2016](http://www.belspo.be/belspo/brain-be/themes_5_Social_en.stm#2016).

Out of 2,791 respondents who initiated the survey (13.4% participation rate), 676 were removed due to either not providing informed consent ( $N = 261$ ), not completing the survey ( $N = 394$ ), not meeting the age criteria for participation (i.e., between 16 and 69 years old;  $N = 5$ ), completing the survey more than once ( $N = 15$ ), and concerns about the quality of the responses ( $N = 1$ ). This leaves a total final sample of  $N = 2,115$  (10.2%).

Sociodemographic characteristics of the sample are summarized in Table 1. Young females (cf. Table 2) and higher educated people are overrepresented in the sample. Almost half of all respondents (i.e., 46.7%) completed a level of higher education, while, on the population level, 36% of Belgian residents between 15 and 64 years completed a higher educational level (Statbel, 2020). The amount of people that completed no or only primary education reflects the proportion on the population level (i.e., 7.6%; Statbel, 2020). The amount of non-heterosexual persons taking part in our survey is with 11% similar to rates obtained in other online surveys (Coffman et al., 2017; Herbenick et al., 2010).

[\[Insert Table 1 around here\]](#)

## Measures

In order to measure sexual victimization, a scale was developed and translated into a total of five languages including the most frequently spoken by the research population at the time of the study (i.e., Dutch, French, and English) and two additional languages (i.e., Arabic and Farsi<sup>2</sup>). A face and content validity test was conducted among 37 participants of the target population (17 male and 20 female) and 36 experts (i.e., psychiatrists, psychologists, people working in LGBTQIA organizations, policy makers and academics). The survey was adapted according to the feedback given by respondents and experts and was well-received and considered as covering all relevant aspects.

### *Assessment of Victimization*

The assessment of sexual victimization was guided by the definition of sexual violence by the World Health Organization (WHO; 2015) as:

[...] any sexual act that is perpetrated against someone's will" (Centers for Disease Control and Prevention, 2014). It can be committed "by any person regardless of their relationship to the victim, in any setting" (WHO, 2002). It includes, but is not limited to, rape, attempted rape and sexual slavery, as well as unwanted touching, threatened sexual violence and verbal sexual harassment (Arsanjani, 1999). (p. 3)

**Lifetime Prevalence.** A broad definition of sexual victimization, including hands-off and hands-on victimization, using behaviorally specific questions was applied. To assess respondents' lifetime sexual victimization, 17 questions were asked. In order to assess overall lifetime victimization, we created a dichotomous variable out of all 17 items that indicated whether the respondent had experienced any of the 17 items or not. These items are based on the Sexual Experience Survey – Long Form Victimization (Koss et al., 2006, 2007), the National Intimate Partner and Sexual Violence Survey (NISVS; Smith et al., 2017), and the Sexual Aggression and Victimization Scale (SAV-S; Krahé & Berger, 2013). The items were rephrased to avoid gender-binary questions. The lack of consent was rephrased according to the definition of sexual violence made by the WHO (2015; '*against my will*' instead of '*without my consent*') and question wording was modified to fit within the Belgian social and legal context. Overall, the 17 items can be grouped into hands-off (8) and hands-on (9) sexual victimization, the latter being further grouped into sexual abuse (4) and attempted or completed rape (5):

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<sup>2</sup> These languages as well as English were added to allow foreign-language speakers to participate. The survey in Arabic and Farsi was completed by six respondents.

**(1) Hands-off sexual victimization (no physical contact).**

- Staring: *Someone stared at me in a sexual way or looked at my intimate body parts (e.g., breasts, vagina, penis, anus) when I didn't want it to happen.*
- Comments: *Someone made teasing comments of a sexual nature about my body or appearance even though I didn't want it to happen.*
- Showing sexual images: *Someone showed me sexual or obscene materials such as pictures, videos, (directly or over the internet (including email, social networks and chat platforms) even though I didn't want to look at them. (This does not include mass mailings or spam.)*
- Calls or texts: *Someone made unwelcome sexual or obscene phone calls or texts to me.*
- Voyeurism: *I caught someone watching me, taking photos or filming me when I didn't want it to happen while I was undressing, nude or having sex.*
- Distribution of images: *Someone distributed naked pictures or videos of me directly or over the internet (including email, social networks and chat platforms) when I didn't want it to happen.*
- Exhibitionism: *Someone showed their intimate body parts (e.g., breasts, vagina, penis, anus) to me in a sexual way and/or masturbated in front of me when I didn't want to see it.*
- Forcing to show intimate body parts: *Someone made me show my intimate body parts (e.g., breasts, vagina, penis, anus) (online or face-to-face) when I didn't want to do it.*

**(2) Hands-on sexual victimization.**

Sexual abuse (physical contact but no penetration)

- Kissing: *Someone kissed me against my will.*
- Touching in care: *Someone touched my intimate body parts (e.g., breasts, vagina, penis, anus) during care against my will.*
- Fondling/rubbing: *Someone fondled or rubbed up against my intimate body parts (e.g., breasts, vagina, penis, anus) against my will.*
- Undressing: *Someone removed (some of) my clothes against my will.*

Rape and attempted rape (physical contact with attempted or completed penetration)

- Oral penetration: *Someone had oral sex with me or made me give oral sex against my will.*
- Attempt of oral penetration: *Someone tried, but did not succeed, to have oral sex with me or tried to make me give oral sex against my will.*
- Vaginal or anal penetration: *Someone put their penis, finger(s) or object(s) into my*

*vagina or anus against my will.*

- Attempt of vaginal or anal penetration: *Someone tried, but did not succeed to put their penis, finger(s) or object(s) into my vagina or anus against my will.*
- Forcing to penetrate: *Someone made me put my penis, finger(s) or object(s) into their (or someone's) vagina or anus against my will.*

**12-Month Prevalence.** Respondents were asked to indicate whether they had ever experienced this in their lives. If a respondent answered with 'yes', they were asked each time how many times this had happened in the past 12 months. For the first four items of hands-off sexual victimization, respondents could answer with *never, less than monthly, monthly, weekly, or daily*. For the remaining questions, a numeric answer was asked. The answers to the 12-month prevalence questions were recoded into a binary variable to reflect the absence (= *never* or 0) vs. presence (all other options) of victimization in the past 12 months.

### ***Coercive Strategy***

The hands-on victimization items were further followed by a question regarding the type of coercion that was used. Respondents that indicated having experienced sexual abuse or (attempted) rape were asked each time which circumstances described best how the incident had happened. Items reflecting the coercion types of verbal pressure, (threat of) using force, and exploiting of incapacitation were derived from Krahé and Berger (2013). We further provided the answer option that someone exploited their position of authority or power (Keygnaert et al., 2012; Keygnaert et al., 2014) and to indicate that none of the answer options apply.

### ***Assessment of Potential Risk Factors***

A number of demographical, socioeconomical, and variables related to the respondents' sexuality were included in the analyses. Next to respondents' year of birth and their sex assigned at birth, participants were further asked about their highest completed level of education and current occupational situation. The variable *age* was computed by subtracting the participant's year of birth from 2019, the year in which the sample was drawn. This was also applied to respondents who completed the survey in early 2020 as it was more likely that their date of birth was after the last recorded response in February.

The current financial situation was assessed by asking respondents whether, with their monthly household income, they were able to make ends meet *easily, fairly easily, with some difficulty, or with great difficulty*. These four answer options were combined into a binary variable (*easy* vs. *difficult*). Furthermore, participants were asked about their sexual orientation (see Table 1) which was also grouped into a binary variable (*heterosexual* vs. *non-heterosexual*) for analysis. Respondents were further asked whether they ever had sex in their lives, with sex being defined as oral, vaginal, or anal intercourse. Only those who answered this question affirmatively received the following questions about their age at the first time they had sex (i.e., sexual initiation) and with how many men and women they had sex in their lives. The latter was assessed by asking respondents to fill in a number for male sexual partners and female sexual partners. When an answer to one of these two variables, but not to both, was missing, it was assigned the value 0.

To reduce information loss due to missing values in the following analysis, age at sexual initiation was grouped into *early* vs. *late* sexual initiation, with 15 years or younger being considered as early (cf. Epstein et al., 2018; Young et al., 2018). Respondents, all being at least 16 years old at the time of survey completion, who indicated that they never had sex were therefore assigned to the category *late initiation*.



The number of male and female sexual partners was combined into a total number. Respondents who indicated that they never had sexual intercourse were given the value 0.

## Analysis

Analyses were conducted using R version 3.6.3. To adjust for oversampling and non-response, sample weights were computed based on the known population distribution of males and females in three age groups (see Table 2). These population proportions were provided by the National Register and reflect the Belgian population at the time of the sampling. Prevalence estimates were obtained after applying these weights. Gender and age differences were tested on the weighted estimates, and Bonferroni corrections were applied to the pairwise comparisons of the three age groups.

Multivariate logistic regression analyses were computed to examine the association of demographic (i.e., sex, age) and socioeconomic factors (i.e., financial situation, occupational status, and educational level) as well as sexuality-related variables with the risk of sexual victimization, both lifetime and in the past 12 months. All variables, without sample weights, were added simultaneously. Adjusted odds ratios are reported to indicate the risk of sexual victimization for that variable while adjusting for the effects of the other predictor variables in the model. The multi-collinearity assumption of multivariate regression analyses was tested with the Variance Inflation Factor (VIF) and indicated no violation. The linearity assumption of continuous variables added to the analysis (i.e., number of sex partners) was tested with the Box-Tidwell test (Box & Tidwell, 1962) which indicated a violation of this assumption. The variable was therefore dummy coded based on the median. Respondents who indicated having had none to two sex partners were given the value 0 and respondents who indicated having had three or more sex partners were given the value 1.

[\[Insert TABLE 2 around here\]](#)

## RESULTS

### Prevalence of Sexual Victimization

Overall, 64.1% (95% CI: 61.9-66.1) of Belgian residents between 16 and 69 years experienced some form of sexual victimization during their lifetimes and 44.1% (95% CI: 41.9-46.2) in the past 12 months. The prevalence estimates for lifetime and 12-month victimization, stratified by sex and age, are presented in detail in Table 3 and 4, respectively.

#### *Lifetime Victimization*

**Hands-Off.** Young women report higher prevalence rates for most forms of hands-off victimization than older women. This difference is especially large for showing and distributing sexual images,  $X^2(2, N = 1,056.8) = 47.75, p < 0.001$  and  $X^2(2, N = 1,056.8) = 12.00, p = 0.003$ , respectively. Pairwise comparisons with Bonferroni corrections indicate that the rates for showing sexual images is significantly lower in women between 50 and 69 years (youngest vs. oldest:  $p < .001$ , middle vs. oldest:  $p < .001$ ). The rates for distribution of sexual images is significantly higher in women between 16 and 24 years as compared to women between 50 and 69 years ( $p = .004$ ).

Also, young female adults report having been forced to show intimate body parts two times more often than female adults between 25 and 49 years and almost six times more than women between 50 and 69 years,  $X^2(2, N = 1,056.8) = 26.66, p < 0.001$ . All pairwise comparisons of age groups are significant for this variable (youngest vs. middle:  $p = .022$ , middle vs. oldest:  $p = .012$ , youngest vs. oldest:  $p < .001$ ). Only the prevalence estimates for voyeurism and exhibitionism are highest in the oldest age group. These age differences are, however, not significant. The overall rates for hands-off victimization of the first two age groups are similar (84.2 and 82.6%, respectively) and higher than in the oldest age group (68.8%),  $X^2(2, N = 1,056.8) = 28.95, p < 0.001$ . Pairwise comparisons with Bonferroni corrections

indicate that overall rates of hands-off victimization are significantly lower in women between 50 and 69 years (youngest vs. oldest:  $p = .001$ , middle vs. oldest:  $p < .001$ ).

The pattern for male hands-off victimization is similar. Male adults between 50 and 69 years report the lowest and young men the highest prevalence rates, without any exception for certain types,  $X^2(2, N = 1,060.4) = 30.52$ ,  $p < 0.001$ . Overall rates of hands-off victimization are significantly lower in men between 50 and 69 years (youngest vs. oldest:  $p < .001$ , middle vs. oldest:  $p < .001$ ).

**Hands-On.** Male hands-on victimization follows the same pattern as hands-off victimization: men between 16 and 24 years report the highest prevalence rates and men between 50 and 69 the lowest, with the exception of forced oral sex which is lowest in men between 16 and 24 years. However, none of these age differences are significant.

The age differences in female hands-on victimization are smaller compared to hands-off victimization and range from 40.0% in women aged 25 to 49 years and 45.2% in women aged 16 to 24. Rates for completed rape are lowest in females between 25 and 49, while the prevalence of being forced to penetrate someone is highest in that age group. None of these age differences are significant.

### ***Past-Year Victimization***

For both men and women, victimization in the past 12 months was highest in the youngest age group and lowest in the oldest age group for all types of sexual victimization. The overall estimates range from 22.7% for men between 50 and 69 years and 79% for women between 16 and 24 years. The gender differences, especially for hands-on victimization, are smaller compared to lifetime victimization but still significant,  $X^2(2, N = 2,117.2) = 123.7$ ,  $p < 0.001$ . While women were more than three times more likely to be raped in their lifetimes, the prevalence estimates for past-year rape in females are only 1.5 times higher.

Age differences are significant for all age groups in women,  $X^2(2, N = 1,056.8) = 89.46$ ,  $p < 0.001$ , with rates for overall sexual victimization ranging from 79.0% in women between 16 and 24 and 39.0% in women between 50 and 69 years. The same applies to male past-year victimization,  $X^2(2, N = 1,060.4) = 39.54$ ,  $p < 0.001$ , with rates ranging from 49.7% in men between 16 and 24 and 22.7% in men between 50 and 69 years.

### **Coercive Strategies**

Table 5 shows the types of coercion used by the perpetrator for each type of victimization and aggregated for sexual abuse, rape, and any hands-on victimization. It is striking that respondents mostly indicated that none of the provided answer options applied. This is the case for all forms of sexual abuse, except for being undressed against one's will, where the (threat of) using physical force was indicated most often as the coercive strategy used. For completed rape (i.e., oral, and vaginal or anal penetration), the (threat of) using physical force was also indicated most often. Overall, out of the four given coercion strategies, exploiting the victim's incapacitated state was, with 1 in 4 times, indicated most often.

[Insert [Table 3, 4 and 5](#) around here]

### **Risk Factors**

The results of the logistic regression analysis and all adjusted odds ratios are summarized in Table 6.

#### ***Sex and Age***

Women are more likely than men to be sexually victimized, both in their lifetimes and in the past 12 months. Comparing the different age groups, respondents between 25 and 49 years old are more likely than the older age group to be victimized, both in their lifetimes and in the past 12 months, and young

adults are most likely to be victimized as compared to those aged 25 years or older.

### ***Sexuality and Relationships***

Seventy-eight percent (95% CI: 71.0-83.1) of non-heterosexual persons experienced some form of sexual victimization in their lifetimes and are about two times more likely to be victimized than heterosexual persons.

Eighty-two percent ( $N = 1,739$ ) of all respondents reported that they ever had sexual intercourse in their lives. For 15.3% ( $N = 318$ ) this occurred before the age of 16. This early sexual initiation is linked to an increased likelihood for sexual victimization. The association is, however, only significant for past-year victimization. Furthermore, half of the participants ( $N = 1,043$ ) indicated having had three or more sexual partners in their lives which is associated with a higher likelihood of sexual victimization.

Almost half of all respondents (48.7%,  $N = 1,030$ ) reported to be living with a partner and 17.5% ( $N = 370$ ) reported having a partner but not living together. Living with a partner comes along with a decreased risk of sexual victimization in the past 12 months when compared to not having a partner.

### ***Socio-Economic Factors***

Respondents' level of completed education is not significantly associated with the likelihood of sexual victimization. Also, being a student is not associated with an increased likelihood when compared to (self-)employed people or voluntary workers. The group of inactive people, on the other hand, is less likely to be victimized. Furthermore, the logistic regression analysis revealed an increased likelihood of sexual victimization for those who describe their financial situation as difficult.

[\[Insert Table 6 around here\]](#)

### **Comparison With Other Prevalence Studies**

Table 7 provides a comparison of the current study's prevalence estimates to those obtained by other prevalence studies. The studies were selected because they were conducted within the past ten years in Belgium (Buysse et al., 2013; Krahé et al., 2015) or in neighboring countries. The latter includes a representative Dutch study (Haas et al., 2012) and a non-representative but large-scale German study (Krahé & Berger, 2013).

To match our prevalence estimates as much as possible with these prevalence rates, we adjusted our analysis regarding respondents' age and victimization items. This comparison shows that our prevalence estimates are substantially higher than those obtained in the Netherlands (Haas et al., 2012) and in Belgium (Buysse et al., 2013; Krahé et al., 2015). Only the study conducted with a large student sample in Germany yielded similar results (Krahé & Berger, 2013).

[\[Insert Table 7 around here\]](#)

## **DISCUSSION**

### **Prevalence of Sexual Victimization**

The current study provides comparable and nationally representative prevalence rates of sexual victimization. Our findings show that sexual violence is prevalent in both men and women and in all age groups. The fact that the youngest age group in our study is most likely to having been victimized in the past 12 months is in line with past research that has shown that young adults and adolescent are especially at risk of sexual victimization. In a US representative telephone survey, only 11% of men and

women that had been raped reported that they were 25 years or older the first time it happened (Basile et al., 2007). Also the study conducted by Buysse et al. (2013) suggests that a large proportion of sexual victimization occurs at young age. In a British probability sample (N = 15,162) of men and women between 16 and 74 years the mean age at the last occurrence of completed rape was 20.6 for women, and 19.2 for men (Maddowall et al., 2013).

That those between 16 and 24 years also reported more overall lifetime victimization than older age groups is a surprising and concerning finding as their window of exposure to sexual violence is substantially shorter. The difference is especially large for hands-off victimization and forms of it that may typically occur online, such as showing and distributing sexual images. Research on technology-facilitated sexual victimization has shown that young adults aged 18 to 24 years are more likely to report any lifetime experience of technology-facilitated forms of sexual victimization (Powell & Henry, 2019). In the current study, voyeurism and exhibitionism were the only types of hands-off victimization that were reported most often by women aged 50 to 69 years, and only for lifetime victimization but not in the past 12 months. This exception to the trend of higher rates in young adults could be an indicator that these types are replaced by technology-facilitated behavior (e.g., sending sexual images instead of exposing oneself in person).

Also the prevalence estimates of hands-on lifetime victimization in young men are higher compared to older men and similar for young women compared to older women, despite the fact that they reported about a much shorter period. This finding might indicate a general trend of increasing sexual victimization in young adults. Moreover, younger people might have a higher level of awareness of sexually transgressive behavior. Even though the behaviorally specific questions used in this study prevent a potential bias in the interpretation of sexual victimization (Peterson et al., 2011), experiencing a situation as occurring against one's will, as it was asked in our survey, might still be different depending on a person's awareness of topics like consent and sexual violence. These topics have caught more attention especially in recent years due to the #MeToo movement, which was largely an online phenomenon that might have affected young people more. In a study comparing the understanding of sexual consent across age groups, Graf and Johnson (2020) found that young adults' definition of consent more frequently reflected media campaigns, such as 'Yes means yes' and that they had a more detailed understanding of what consent entails. Furthermore, even though the views on sexuality as well as consent might be shifting in older generations (Graf & Johnson, 2020), those views were more restrictive when those older adults were young. Therefore, a situation that would now be experienced as unwanted, might have been an accepted behavior in their youth and, as a consequence, not remembered. This might especially be the case for less serious incidents which may also account for the lower hands-off victimization rates in adults aged 50 to 69 years found in this study.

### **Comparison With Other Prevalence Studies**

In comparison to earlier prevalence studies, it becomes evident that our prevalence estimates are relatively high. The most comparable study in terms of victimization items that was also conducted in Belgium (Krahé et al., 2015) reports prevalence rates that are half as high as the ones from the current study. One major difference to our study is that Krahé et al. (2015) asked respondents to report sexual victimization that occurred since the age of consent, 16 years in Belgium, thus excluding child sexual abuse, whereas our prevalence estimates include victimization over the entire past lifetime. Furthermore, the SAV-S (Krahé & Berger, 2013, also used in Krahé et al., 2015) combines victimization items with one of three coercion strategies. If a respondent experienced some type of victimization but none of the coercive strategies applied, they could not answer that question affirmatively. In our face validity test of survey items, respondents stated that this answer format did not make it clear what to answer when the incident occurred under other circumstances. Our results further highlighted the fact that the

circumstances in which sexual violence occurs are more diverse. Therefore, this might have led to an underestimation of sexual victimization in the study conducted by Krahé et al. (2015). Furthermore, we assessed hands-on victimization with nine different items, eight of which were included for the comparison of prevalence rates obtained by Krahé and Berger (2013) and Krahé et al. (2015) who assessed hands-on victimization with four different items. These four items asked about nonconsensual sexual touch, attempted and completed sexual intercourse, and other sexual acts. As it might not be clear for everyone what, for example, sexual touch entails, our approach was to specify the different behaviors that comprise hands-on victimization more. This might have resulted in higher prevalence rates because respondents' memories were cued more toward specific incidents that they otherwise might not have recalled or not considered as falling into this category (Peterson et al., 2011).

The study conducted by Buysse et al. (2013) in the Dutch-speaking part of Belgium obtained much lower prevalence rates, especially for men. One reason for this could be less willingness to disclose victimization given that the study used telephone interviews. Furthermore, no BSQs were used to assess sexual victimization. The lower prevalence rates reported by de Haas et al. (2012) may also be explained by differences in item wording. While de Haas et al. (2012) used a large representative sample, not all items were behaviorally specific (e.g., "I was raped.", p. 600), and items assessing hands-off victimization were rather vague, such as "Someone made hurtful remarks" (p. 600). This specific item was also excluded from the overall prevalence rate. As highlighted earlier, using behaviorally specific questions is crucial in order to obtain reliable responses in sexual victimization surveys (Peterson et al., 2011).

All in all, these large discrepancies in prevalence rates of sexual victimization and in the way they are assessed highlight the need for comparable studies on sexual victimization. Future research should use BSQs to assess sexual victimization as well as assess and report prevalence rates in a way that is comparable. That way, cross-country comparisons of prevalence rates could become more suitable to actually explain potential differences in sexual victimization rates by differences in, for example, legislation instead of attributing them to differences in study designs.

### **Risk Factors**

We further aimed to provide an analysis of risk factors. Our findings suggest that being female, young, and non-heterosexual is associated with an increased likelihood of sexual victimization which is in line with past research (Auderset et al., 2020; Canan et al., 2020; Krahé et al., 2015). Also in line with past research is that an earlier sexual initiation and a larger number of sexual partners is associated with an increased likelihood of sexual victimization (Auderset et al., 2020; Macdowall et al., 2013).

### **Coercive Strategy**

The most often indicated coercion types were the exploitation of the victim's intoxicated state and the use or threat of physical force. However, most respondents who have been victimized indicated that none of the four given coercion types applied to their experience. This suggests that there are more reasons and underlying mechanisms for not resisting unwanted sexual behavior. Canan et al. (2020) added three coercion tactics to the ones provided in the revised SES – Short Form Victimization (Koss et al., 2007). One of these tactics, "Just doing the behavior without giving me a chance to say 'no' (e.g. surprising me with the behavior)", was in fact indicated most often in their study, and the two others were reported as often as the existing SES items. Furthermore, the authors identified 12 additional types of perpetration tactics in participants' open-ended narratives. This shows that coercive strategies in a legal sense do not fully cover the perpetration tactics used to impede the victim's resistance. Future research should therefore apply a broader definition of coercion tactics to understand the dynamics underlying sexual victimization.

## **Limitations**

As any self-report measure, also this survey study might have been subject to recall bias. This bias was limited by the use of behaviorally specific questions which facilitates memory recall (Haas et al., 2012). Furthermore, the response rate is with 10.2% lower than initially expected. However, the representativeness of the sample can be considered as a strength that outweighs the low response rate. Cook et al. (2000) state that sample representativeness is more important than sample size. To increase the representativeness of our sample, we recruited a random sample through the National Register. Furthermore, sample weights were applied to balance differences in response rates across sub-groups out and achieve estimates that are representative for the general population. Another limitation is that we cannot differentiate between lifetime victimization during childhood and adulthood. Future studies should add a short follow-up question asking, for example, 'Has this happened to you before you were 16, after, or both?'. This would further increase comparability and allow to analyze both child and adult sexual victimization as well as their relationship.

## **Conclusion**

The current study provides nationally representative prevalence estimates of hands-off and hands-on sexual victimization in the Belgian general population. Lifetime prevalence rates contribute to our understanding of the magnitude of sexual victimization, and 12-month prevalence rates allow us to provide data on the current figures on SV to formulate policy recommendations. Our study shows that the extent of sexual victimization in the general population has been underestimated so far. Our risk analysis shows that young people, especially women, and non-heterosexual people are most at risk of sexual victimization, but the generally high prevalence rates found in our study demonstrate that all sexes and ages are affected by sexual victimization. Prevention strategies should therefore target all sexes and ages while taking into account the specific risk factors relevant to the specific group.

## REFERENCES

- Auderset, D., Akre, C., Barrense-Dias, Y., Berchtold, A., Jacot-Descombes, C., Leeners, B., . . . Surís, J.-C. (2020). Profile of Young Victims of Unwanted Sexual Experiences: a Gender Comparison Using a Swiss National Survey. *Sexuality Research and Social Policy*, 25(1), 69. <https://doi.org/10.1007/s13178-020-00436-y>
- Bajos, N., & Bozon, M. (2008). Les agressions sexuelles en France: résignation, réprobation, révolte. *La Sexualité En France. Pratiques, Genre Et Santé, Paris, La Découverte*, 381–407.
- Basile, K. C., Chen, J., Black, M. C., & Saltzman, L. E. (2007). Prevalence and characteristics of sexual violence victimization among U.S. Adults, 2001-2003. *Violence and Victims*, 22(4), 437–448. <https://doi.org/10.1891/088667007781553955>
- Basile, K. C., Smith, S. G., Breiding, M., Black, M. C., & Mahendra, R. R. (2014). *Sexual violence surveillance: Uniform definitions and recommended data elements. Version 2.0*: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Box, G. E.P., & Tidwell, P. W. (1962). Transformation of the Independent Variables. *Technometrics*, 4(4), 531–550. <https://doi.org/10.1080/00401706.1962.10490038>
- Breiding, M. J. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization—National Intimate Partner and Sexual Violence Survey, United States, 2011. *Morbidity and Mortality Weekly Report. Surveillance Summaries (Washington, DC: 2002)*, 63(8), 1.
- Breiding, M. J., Black, M. C., & Ryan, G. W. (2008). Prevalence and risk factors of intimate partner violence in eighteen U.S. States/territories, 2005. *American Journal of Preventive Medicine*, 34(2), 112–118. <https://doi.org/10.1016/j.amepre.2007.10.001>
- Buysse, A., Caen, M., Dewaele, A., Enzlin, P., Lievens, J., T'Sjoen, G., . . . Vermeersch, H. (2013). *Seksuele gezondheid in Vlaanderen*: Academia Press.
- Canan, S. N., Jozkowski, K. N., Wiersma-Mosley, J., Blunt-Vinti, H., & Bradley, M. (2020). Validation of the Sexual Experience Survey-Short Form Revised Using Lesbian, Bisexual, and Heterosexual Women's Narratives of Sexual Violence. *Archives of Sexual Behavior*, 49(3), 1067–1083. <https://doi.org/10.1007/s10508-019-01543-7>
- Coffman, K. B., Coffman, L. C., & Ericson, K. M. M. (2017). The Size of the LGBT Population and the Magnitude of Antigay Sentiment Are Substantially Underestimated. *Management Science*, 63(10), 3168–3186. <https://doi.org/10.1287/mnsc.2016.2503>
- Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web-or internet-based surveys. *Educational and Psychological Measurement*, 60(6), 821–836.
- Depraetere, J., Vandeviver, C., Vander Beken, T., & Keygnaert, I. (2020). Big Boys Don't Cry: A Critical Interpretive Synthesis of Male Sexual Victimization. *Trauma, Violence, & Abuse*, 21(5), 991-1010. <https://doi.org/10.1177/1524838018816979>
- Elliott, D. M., Mok, D. S., & Briere, J. (2004). Adult sexual assault: Prevalence, symptomatology, and sex differences in the general population. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, 17(3), 203–211.

- Epstein, M., Madeline, F., Kosterman, R., Bailey, J. A., King, K. M., Vasilenko, S. A., . . . Hill, K. G. (2018). Adolescent Age of Sexual Initiation and Subsequent Adult Health Outcomes. *American Journal of Public Health, 108*(6), 822–828. <https://doi.org/10.2105/AJPH.2018.304372>
- Graf, A. S., & Johnson, V. (2020). Describing the “Gray” Area of Consent: A Comparison of Sexual Consent Understanding Across the Adult Lifespan. *The Journal of Sex Research, 1*–14.
- Haas, S. d., Berlo, W. v., Bakker, F., & Vanwesenbeeck, I. (2012). Prevalence and characteristics of sexual violence in the Netherlands, the risk of revictimization and pregnancy: Results from a national population survey. *Violence and Victims, 27*(4), 592–608.
- Herbenick, D., Reece, M., Schick, V., Sanders, S. A., Dodge, B., & Fortenberry, J. D. (2010). Sexual behavior in the United States: Results from a national probability sample of men and women ages 14–94. *The Journal of Sexual Medicine, 7*, 255–265.
- Keygnaert, I., Dialmy, A., Manço, A., Keygnaert, J., Vettenburg, N., Roelens, K., & Temmerman, M. (2014). Sexual violence and sub-Saharan migrants in Morocco: a community-based participatory assessment using respondent driven sampling. *Globalization and Health, 10*(1), 32.
- Keygnaert, I., Vettenburg, N., & Temmerman, M. (2012). Hidden violence is silent rape: sexual and gender-based violence in refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. *Culture, Health & Sexuality, 14*(5), 505–520.
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., . . . White, J. (2006). The Sexual Experiences Survey - Long Form Victimization (SES-LFV).
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., . . . White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly, 31*(4), 357–370.
- Krahé, B., & Berger, A. (2013). Men and women as perpetrators and victims of sexual aggression in heterosexual and same-sex encounters: A study of first-year college students in Germany. *Aggressive Behavior, 39*(5), 391–404. <https://doi.org/10.1002/ab.21482>
- Krahé, B., Berger, A., Vanwesenbeeck, I., Bianchi, G., Chliaoutakis, J., Fernández-Fuertes, A. A., . . . Zygałło, A. (2015). Prevalence and correlates of young people's sexual aggression perpetration and victimisation in 10 European countries: A multi-level analysis. *Culture, Health & Sexuality, 17*(6), 682–699. <https://doi.org/10.1080/13691058.2014.989265>
- Krahé, B., Tomaszewska, P., Kuyper, L., & Vanwesenbeeck, I. (2014). Prevalence of sexual aggression among young people in Europe: A review of the evidence from 27 EU countries. *Aggression and Violent Behavior, 19*(5), 545–558.
- Macdowall, W., Gibson, L. J., Tanton, C., Mercer, C. H., Lewis, R., Clifton, S., . . . Wellings, K. (2013). Lifetime prevalence, associated factors, and circumstances of non-volitional sex in women and men in Britain: findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). *The Lancet, 382*(9907), 1845–1855. [https://doi.org/10.1016/S0140-6736\(13\)62300-4](https://doi.org/10.1016/S0140-6736(13)62300-4)
- Peterson, Z. D., Voller, E. K., Polusny, M. A., & Murdoch, M. (2011). Prevalence and consequences of adult sexual assault of men: Review of empirical findings and state of the literature. *Clinical Psychology Review, 31*(1), 1–24.
- Pieters, J., Italiano, P., Offermans, A.-M., & Hellemans, S. (2010). Ervaringen van vrouwen en mannen met psychologisch, fysiek en seksueel geweld.



- Powell, A., & Henry, N. (2019). Technology-facilitated sexual violence victimization: Results from an online survey of Australian adults. *Journal of Interpersonal Violence*, 34(17), 3637–3665.
- Smith, S. G., Basile, K. C., Gilbert, L. K., Merrick, M. T., Patel, N., Walling, M., & Jain, A. (2017). National intimate partner and sexual violence survey (NISVS): 2010–2012 state report.
- Statbel (2020). Onderwijsniveau van de Belgische bevolking van 15-64 jaar. Retrieved from <https://bestat.statbel.fgov.be/bestat/crosstable.xhtml?view=631b4535-7a63-4695-967f-fe42238ee9af>
- Sundaram, V., Laursen, B., & Helweg-Larsen, K. (2008). Is sexual victimization gender specific? The prevalence of forced sexual activity among men and women in Denmark, and self-reported well-being among survivors. *Journal of Interpersonal Violence*, 23(10), 1414–1440.
- Vanwesenbeeck, I., Bakker, F., & Gesell, S. (2010). Sexual health in the Netherlands: Main results of a population survey among Dutch adults. *International Journal of Sexual Health*, 22(2), 55–71.
- Wilson, L. C., & Miller, K. E. (2016). Meta-Analysis of the Prevalence of Unacknowledged Rape. *Trauma, Violence & Abuse*, 17(2), 149–159. <https://doi.org/10.1177/1524838015576391>
- World Health Organization (2011). *Violence against women – Intimate partner and sexual violence against women*. Geneva, World Health Organization.
- World Health Organization (2015). *Strengthening the medico-legal response to sexual violence*.
- World Health Organization (2016). *Ethical and safety recommendations for intervention research on violence against women: building on lessons from the WHO publication putting women first: ethical and safety recommendations for research on domestic violence against women*. Geneva: World Health Organization.
- World Health Organization (2019). *Violence against women: intimate partner and sexual violence against women: evidence brief*.
- Young, H., Burke, L., & Nic Gabhainn, S. (2018). Sexual intercourse, age of initiation and contraception among adolescents in Ireland: findings from the Health Behaviour in School-aged Children (HBSC) Ireland study. *BMC Public Health*, 18(1), 362. <https://doi.org/10.1186/s12889-018-5217-z>

## TABLES

**Table 1**

*Sample composition (N = 2115)*

Variable	N (valid %)
Sex	
Female	1164 (55.0)
Male	951 (45.0)
Age in years ( <i>M</i> (SD), range)	35.84 (16.75), 16–69
Educational level	
Primary education or none	155 (7.3)
Secondary education	974 (46.1)
Higher education	986 (46.6)
Occupational status	
Active <sup>a</sup>	996 (47.1)
Student	693 (32.8)
Inactive or other <sup>b</sup>	426 (20.1)
Sexual orientation ( <i>N</i> = 1997)	
Heterosexual	1871 (89.2)
Bisexual	95 (4.5)
Homosexual	53 (2.5)
Pan-, omnisexual	43 (2.0)
Asexual	11 (0.5)
Other	24 (1.2)

<sup>a</sup> Combines the following categories: Employed/independent, contributing family member, voluntary work.

<sup>b</sup> Combines the following categories: Financial self-sufficiency or any other type of alternative choice of living, housewife/-man, not able to work because of ill health, on the job market / looking for a job, retired, other.

**Table 2**

*Sample weights*

Age group	Sex	Population <i>N</i>	Population Proportion	Sample <i>n</i>	Sample Proportion	Population / Sample = Weights
Youngest:	Female	576,098	0.07	520	0.25	0.30
16-24	Male	601,426	0.08	340	0.16	0.48
Middle:	Female	1,864,081	0.24	362	0.17	1.39
25-49	Male	1,883,527	0.24	303	0.14	1.67
Oldest: 50-	Female	1,475,820	0.19	282	0.13	1.41
69	Male	1,458,421	0.19	308	0.15	1.27
Total		7,859,373	1.00	2,115	1.00	1.09

**Table 3***Detailed and grouped weighted lifetime prevalence estimates sexual victimization, by sex and age*

Item	Men				Women			
	16-24 % (95% CI)	25-49 % (95% CI)	50-69 % (95% CI)	Total % (95% CI)	16-24 % (95% CI)	25-49 % (95% CI)	50-69 % (95% CI)	Total % (95% CI)
Staring	19.7 (14.1-26.8)	24.4 (20.8-28.5)	13.0 (9.9-16.8)	19.5 (17.2-22.0)	67.7 (59.7-74.8)	65.7 (61.4-69.8)	47.2 (42.2-52.2)	59.0 (56.0-62.0)
Comments	24.7 (18.4-32.2)	22.8 (19.2-26.7)	11.4 (8.5-15.0)	18.9 (16.6-21.4)	52.3 (44.2-60.3)	56.1 (51.6-60.5)	42.9 (38.0-47.9)	50.6 (47.5-53.6)
Showing images	24.4 (18.2-31.8)	16.2 (13.1-19.7)	7.8 (5.4-11.0)	14.4 (12.3-16.6)	31.3 (24.3-39.3)	23.2 (19.6-27.2)	8.9 (6.3-12.2)	19.0 (16.7-21.5)
Calls or texts	12.9 (8.4-19.3)	5.3 (3.6-7.7)	3.6 (2.0-6.1)	5.8 (4.5-7.5)	26.0 (19.4-33.7)	16.6 (13.5-20.2)	9.9 (7.3-13.4)	15.5 (13.4-17.8)
Voyeurism	3.2 (1.2-7.6)	4.0 (2.5-6.1)	0.3 (0.03-1.8)	2.5 (1.7-3.7)	2.7 (0.9-7.0)	3.3 (2.0-5.4)	3.2 (1.8-5.6)	3.2 (2.2-4.5)
Distributing images	2.3 (0.7-6.4)	1.0 (0.4-2.4)	0.6 (0.1-2.2)	1.1 (0.6-2.0)	3.5 (1.3-8.1)	1.4 (0.6-2.9)	0.0 (0.0-1.2)	1.2 (0.6-2.1)
Exhibitionism	8.8 (5.1-14.5)	5.9 (4.1-8.5)	3.2 (1.8-5.7)	5.4 (4.1-7.0)	20.2 (14.4-27.5)	19.3 (16.0-23.1)	26.2 (22.0-30.9)	22.1 (19.6-24.7)
Forcing to show body parts	4.4 (2.0-9.1)	3.6 (2.2-5.8)	2.9 (1.6-5.3)	3.5 (2.5-4.8)	14.2 (9.3-20.9)	6.9 (4.9-9.6)	2.5 (1.3-4.7)	6.3 (5.0-8.0)
<b>Any Hands-Off</b>	51.8 (43.9-59.6)	45.9 (41.5-50.3)	30.5 (26.0-35.4)	41.1 (38.1-44.2)	84.2 (77.3-89.4)	82.6 (78.9-85.7)	68.8 (63.9-73.3)	77.6 (75.0-80.1)
Kissing	12.4 (7.9-18.7)	13.9 (11.0-17.2)	8.1 (5.7-11.4)	11.5 (9.7-13.6)	20.0 (14.2-27.3)	20.2 (16.8-24.0)	24.1 (20.1-28.7)	21.6 (19.2-24.3)
Touching in care	5.3 (2.5-10.2)	4.3 (2.8-6.5)	3.9 (2.3-6.4)	4.3 (3.2-5.7)	10.6 (6.4-16.8)	9.1 (6.8-12.1)	11.3 (8.5-15.0)	10.2 (8.4-12.2)
Fondling/rubbing	9.1 (5.4-14.9)	7.9 (5.8-10.7)	6.5 (4.3-9.5)	7.6 (6.1-9.4)	26.5 (19.9-34.3)	23.2 (19.6-27.2)	22.7 (18.7-27.2)	23.5 (21.0-26.2)
Undressing	3.8 (1.6-8.3)	2.3 (1.2-4.1)	1.3 (0.5-3.2)	2.2 (1.4-3.3)	6.2 (3.1-11.5)	5.5 (3.8-8.0)	4.3 (2.6-6.9)	5.1 (3.9-6.7)
<b>Any Sexual Abuse</b>	22.7 (16.6-30.0)	19.5 (16.2-23.2)	14.3 (11.1-18.2)	18.0 (15.8-20.5)	41.2 (33.4-49.3)	37.3 (33.1-41.7)	38.0 (33.2-42.9)	38.1 (35.2-41.1)
Oral penetration	1.8 (0.4-5.6)	2.3 (1.3-4.1)	2.6 (1.3-4.9)	2.3 (1.5-3.5)	8.1 (4.5-13.8)	4.1 (2.6-6.4)	8.5 (6.0-11.8)	6.4 (5.0-8.1)
Attempt of oral penetration	4.4 (2.0-9.1)	1.3 (0.6-2.9)	0.6 (0.1-2.2)	1.5 (0.9-2.5)	8.3 (4.6-14.0)	5.5 (3.8-8.0)	4.3 (2.6-6.9)	5.5 (4.2-7.0)
Vaginal or anal penetration	0.9 (0.1-4.3)	1.3 (0.6-2.9)	0.0 (0.0-1.2)	0.8 (0.4-1.6)	8.7 (4.9-14.5)	6.1 (4.2-8.6)	8.9 (6.3-12.2)	7.5 (6.0-9.3)
Attempt of vag. or anal penetr.	1.5 (0.3-5.2)	1.0 (0.4-2.4)	0.6 (0.1-2.2)	0.9 (0.5-1.8)	5.6 (2.7-10.8)	5.2 (3.5-7.7)	6.0 (4.0-9.0)	5.6 (4.3-7.2)
Forcing to penetrate	1.8 (0.4-5.6)	1.0 (0.4-2.4)	0.6 (0.1-2.2)	1.0 (0.5-1.8)	0.4 (0.0-3.6)	2.5 (1.4-4.4)	0.7 (0.2-2.3)	1.5 (0.9-2.5)
<b>Any Rape</b>	5.9 (3.0-11.0)	5.3 (3.6-7.7)	4.2 (2.5-6.8)	5.0 (3.8-6.5)	19.6 (13.9-26.9)	13.5 (10.7-16.9)	17.0 (13.5-21.2)	15.7 (13.6-18.1)
<b>Any Hands-On</b>	24.4 (18.2-31.8)	20.1 (16.8-24.0)	15.6 (12.2-19.7)	19.1 (16.8-21.6)	45.2 (37.3-53.3)	40.0 (35.8-44.5)	42.6 (37.7-47.6)	41.7 (38.8-44.8)
<b>Any SV</b>	58.5 (50.5-66.1)	51.5 (47.0-55.9)	37.7 (32.9-42.7)	47.5 (44.4-50.5)	85.2 (78.4-90.2)	85.4 (81.9-88.3)	73.4 (68.7-77.6)	80.8 (78.3-83.1)

**Table 4***Detailed and grouped weighted 12-month prevalence estimates sexual victimization, by sex and age*

Item	Men				Women			
	16-24 % (95% CI)	25-49 % (95% CI)	50-69 % (95% CI)	Total % (95% CI)	16-24 % (95% CI)	25-49 % (95% CI)	50-69 % (95% CI)	Total % (95% CI)
Staring	18.3 (12.8-25.2)	15.5 (12.5-19.0)	8.8 (6.2-12.1)	13.4 (11.5-15.7)	63.7 (55.5-71.1)	50.0 (45.6-54.4)	25.9 (21.7-30.5)	42.9 (39.90-46.0)
Comments	22.4 (16.4-29.7)	16.5 (13.4-20.1)	7.8 (5.4-11.0)	14.2 (12.2-16.5)	46.2 (38.2-54.3)	42.0 (37.7-46.4)	24.8 (20.7-29.4)	36.1 (33.3-39.1)
Showing images	21.2 (15.4-28.4)	13.9 (11.0-17.2)	6.2 (4.1-9.1)	12.1 (10.3-14.3)	24.8 (18.4-32.5)	14.9 (12.0-18.4)	4.3 (2.6-6.9)	12.4 (10.5-14.5)
Calls or texts	11.8 (7.4-18.0)	4.6 (3.0-6.9)	3.2 (1.8-5.7)	5.2 (4.0-6.8)	19.2 (13.5-26.5)	9.1 (6.8-12.1)	3.2 (1.8-5.6)	8.4 (6.8-10.3)
Voyeurism	3.2 (1.2-7.6)	1.6 (0.8-3.3)	0.0 (0.0-1.2)	1.3 (0.7-2.2)	1.9 (0.5-6.0)	1.4 (0.6-2.9)	1.1 (0.4-2.8)	1.3 (0.8-2.3)
Distributing images	0.9 (0.1-4.3)	0.3 (0.0-1.5)	0.6 (0.1-2.2)	0.5 (0.2-1.2)	1.2 (0.2-4.8)	0.0 (0.0-0.9)	0.0 (0.0-1.2)	0.2 (0.0-0.7)
Exhibitionism	6.7 (3.6-12.0)	3.0 (1.7-5.0)	0.6 (0.1-2.2)	2.7 (1.8-3.9)	12.7 (8.1-19.2)	5.2 (3.5-7.7)	1.4 (0.6-3.3)	4.9 (3.7-6.4)
Forcing to show body parts	3.2 (1.2-7.6)	1.6 (0.8-3.3)	0.3 (0.0-1.8)	1.4 (0.8-2.4)	7.1 (3.8-12.7)	0.8 (0.3-2.2)	0.4 (0.0-1.8)	1.6 (0.9-2.6)
<b>Any Hands-Off</b>	46.2 (38.4-54.2)	33.0 (29.0-37.3)	20.8 (16.9-25.2)	30.5 (27.8-33.4)	78.1 (70.6-84.1)	62.2 (57.7-66.4)	38.0 (33.2-42.9)	55.4 (52.3-58.4)
Kissing	6.5 (3.4-11.7)	2.6 (1.5-4.6)	1.9 (0.9-4.0)	3.0 (2.1-4.2)	8.7 (4.9-14.5)	3.3 (2.0-5.4)	2.1 (1.0-4.2)	3.7 (2.6-5.0)
Touching in care	3.8 (1.6-8.3)	1.0 (0.4-2.4)	1.0 (0.3-2.7)	1.4 (0.8-2.4)	6.0 (3.0-11.2)	1.4 (0.6-2.9)	0.4 (0.0-1.8)	1.7 (1.0-2.7)
Fondling/rubbing	6.7 (3.6-12.0)	2.6 (1.5-4.6)	0.6 (0.1-2.2)	2.5 (1.7-3.7)	14.4 (9.5-21.2)	4.7 (3.1-7.0)	2.5 (1.3-4.7)	5.3 (4.1-6.9)
Undressing	2.9 (1.1-7.2)	0.3 (0.0-1.5)	0.3 (0.0-1.8)	0.7 (0.3-1.5)	1.7 (0.4-5.7)	0.3 (0.0-1.4)	0.0 (0.0-1.2)	0.4 (0.1-1.0)
<b>Any Sexual Abuse</b>	14.4 (9.6-20.9)	5.6 (3.8-8.1)	2.9 (1.6-5.3)	6.0 (4.7-7.6)	22.3 (16.2-29.8)	8.3 (6.1-11.1)	4.3 (2.6-6.9)	8.8 (7.2-10.8)
Oral penetration	1.5 (0.3-5.2)	1.3 (0.6-2.9)	0.0 (0.0-1.2)	0.9 (0.4-1.7)	2.3 (0.7-6.5)	0.6 (0.1-1.8)	0.4 (0.0-1.8)	0.7 (0.3-1.5)
Attempt of oral penetration	2.9 (1.1-7.2)	0.7 (0.2-2.0)	0.0 (0.0-1.2)	0.8 (0.4-1.6)	3.3 (1.2-7.8)	1.4 (0.6-2.9)	0.0 (0.0-1.2)	1.1 (0.6-2.0)
Vaginal or anal penetration	0.6 (0.0-3.9)	0.0 (0.0-0.9)	0.0 (0.0-1.2)	0.1 (0.0-0.6)	2.7 (0.9-7.0)	0.3 (0.0-1.4)	0.4 (0.0-1.8)	0.7 (0.3-1.4)
Attempt of vag. or anal penetr.	0.9 (0.1-4.3)	0.3 (0.0-1.5)	0.0 (0.0-1.2)	0.3 (0.1-0.9)	2.5 (0.8-6.8)	0.3 (0.0-1.4)	0.4 (0.0-1.8)	0.6 (0.3-1.4)
Forcing to penetrate	0.6 (0.0-3.9)	0.7 (0.2-2.0)	0.0 (0.0-1.2)	0.4 (0.1-1.1)	0.0 (0.0-3.0)	0.3 (0.0-1.4)	0.0 (0.0-1.2)	0.1 (0.0-0.7)
<b>Any Rape</b>	3.8 (1.6-8.3)	2.3 (1.2-4.1)	0.0 (0.0-1.2)	1.7 (1.0-2.7)	7.5 (4.1-13.1)	1.6 (0.8-3.3)	0.7 (0.2-2.3)	2.2 (1.4-3.3)
<b>Any Hands-On</b>	15.6 (10.5-22.3)	5.9 (4.1-8.5)	2.9 (1.6-5.3)	6.3 (5.0-8.0)	25.6 (19.1-33.3)	9.1 (6.8-12.1)	4.6 (2.8-7.3)	9.9 (8.2-11.8)
<b>Any SV</b>	49.7 (41.8-57.6)	33.7 (29.6-38.0)	22.7 (18.7-27.3)	32.1 (29.3-35.0)	79.0 (71.6-85.0)	62.7 (58.3-66.9)	39.0 (34.2-44.0)	56.2 (53.1-59.2)

**Table 5***Type of coercion used for sexual abuse, rape and attempted rape, in %<sup>a</sup>*

Type of victimization	Verbal pressure	(Threat of) using physical force	Exploitation of incapacitation	Exploitation of authority	Other
Kissing ( <i>n</i> = 354)	7.1	19.2	23.7	9.9	50.0
Touching in care ( <i>n</i> = 163)	7.4	14.7	17.8	21.5	51.5
Fondling ( <i>n</i> = 361)	7.2	13.9	18.0	15.0	57.1
Undressing ( <i>n</i> = 88)	14.8	33.0	20.5	26.1	29.5
<b>Any Sexual Abuse (<i>n</i> = 636)</b>	8.2	18.4	22.6	15.9	59.3
Oral penetration ( <i>n</i> = 102)	27.5	32.4	23.5	26.5	22.5
Attempt of oral penetration ( <i>n</i> = 96)	27.1	27.1	18.8	22.9	28.1
Vaginal or anal penetration ( <i>n</i> = 99)	26.3	30.3	27.3	25.3	24.2
Attempt of vag. or anal penetr. ( <i>n</i> = 75)	12.0	20.0	22.7	16.0	45.3
Forcing to penetrate ( <i>n</i> = 24)	45.8	16.7	29.2	25.0	16.7
<b>Any Rape (<i>n</i> = 248)</b>	25.8	26.1	24.6	23.0	33.5
<b>Any Hands-On (<i>n</i> = 692)</b>	12.9	21.1	25.0	17.9	60.0

<sup>a</sup> Respondents could provide multiple answers, unless Other = *None of the above* was selected.**Table 6***Risk analysis of sexual violence victimization*

Predictors	Lifetime aOR (95% CI)	Past 12 months aOR (95% CI)
Sex (ref. male)	4.96 (4.02-6.14)***	3.43 (2.82-4.18)***
Age		
16 - 24	2.13 (1.36-3.35)***	3.52 (2.33-5.35)***
25 - 49	1.56 (1.18-2.05)**	1.79 (1.37-2.34)***
50 - 69	Ref	Ref
Sexual orientation (ref. Heterosexual)	1.83 (1.25-2.72)**	1.71 (1.23-2.39)**
Sexual initiation (ref. late)	1.33 (0.96-1.85)	1.51 (1.13-2.03)**
Number of sexual partners (ref. 0-2)	1.80 (1.42-2.30)***	1.91 (1.52-2.42)***
Relationship status		
No partner	Ref	Ref
Not living with partner	1.02 (0.74-1.40)	0.97 (0.73-1.30)
Living with partner	1.00 (0.73-1.35)	0.66 (0.50-0.88)**
Education level		
Primary or none	0.79 (0.51-1.23)	0.80 (0.53-1.22)

Secondary	1.15 (0.91-1.45)	1.19 (0.95-1.48)
Higher	Ref	Ref
Occupational status		
Inactive or other	0.72 (0.54-0.96)*	0.74 (0.55-0.98)*
Student	1.08 (0.70-1.65)	1.05 (0.71-1.56)
Active	Ref	Ref
Financial situation	1.34 (1.06-1.71)*	1.30 (1.04-1.62)*
(ref. easy)		

Abbreviations: aOR, adjusted odds ratio

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

**Table 7**

*Comparison of prevalence studies on sexual lifetime victimization*

Author	Country	Sample		Prevalence rates (%)		Items
		Age	N	Men	Women	
Buyse et al. (2013)	BE (Flanders)	14-80	1,825	<18y: 6.3% >18y: 2.3%	<18y: 10.6% >18y: 17.4%	Hands-off and hands-on, non-BSQ
Current study	BE	16-69	2,117.2	47.5 (95% CI: 44.4-50.5)	80.8 (95% CI: 78.3-83.1)	Hands-off and hands-on, BSQ, entire lifespan
Haas et al. (2012)	NL	15-70	6,428	20.5	55.9	Hands-off (limited) and hands-on, partially BSQ
Current study	BE	16-69	2,117.2	47.5 (95% CI: 44.4-50.5)	80.8 (95% CI: 78.3-83.1)	Hands-off and hands-on, BSQ
Krahé and Berger (2013)	GER	19-31	2,149	19.4	35.9	Only hands-on, BSQ, based on SES, only experiences after age 14
Current study	BE	19-31	508.6	19.9 (95% CI: 15.1-25.6)	41.1 (95% CI: 35.2-47.2)	Only hands-on (without 'touching in care'), BSQ, entire lifespan
Krahé et al. (2015) – Belgian subsample	BE	18-27	393	10.1	20.4	Only hands-on, BSQ, based on SES, only experiences after age 16
Current study	BE	18-27	368.8	20.5 (95% CI: 14.9-27.4)	41.6 (95% CI: 34.6-48.9)	Only hands-on (without 'touching in care'), BSQ, entire lifespan